



Stay Informed and Involved

This Community Involvement Plan, or CIP, is the updated strategy for involving community members in the cleanup of the Portland Harbor Superfund site. The plan is a collaborative effort between EPA Region 10 and the Oregon Department of Environmental Quality (ODEQ).

Activities in this plan will be used to make sure we remain in regular contact with everyone interested in the site. This plan is the result of feedback from community meetings, interviews and presentations held in 2012.

Community involvement has played a vital role at the site and will continue to do so in the future. Together, we have moved through the stages of Superfund cleanup. As of 2013, the EPA is currently reviewing cleanup options for the site. EPA Region 10 plans to release a draft cleanup plan for public comment in 2014.

EPA and Community Involvement

This Community Involvement Plan is a strategy to help promote meaningful community involvement throughout the cleanup of the Portland Harbor Superfund site. It specifies planned activities to address community needs, concerns and expectations.

The plan is a working document. It is updated as community concerns become known and more information about the site becomes available.

Our goal is to make sure we consistently provide opportunities for people to share their ideas, concerns and priorities. Ongoing community discussions will help make sure issues and concerns are part of the Superfund process. We look forward to continuing to work with you to strengthen healthy communities and advance environmental protection.

What's Inside

Sections

The Site: At a Glance.....	2
A Closer Look.....	3
Community Background.....	5
What We Have Heard So Far.....	7
Community Involvement Objectives.....	9
Community Involvement Activities.....	9
Project Roles and Responsibilities.....	14
What's Next in the Cleanup Process.....	16

Appendices

A:	Superfund Community Involvement Activities
B:	The Superfund Process
C:	Area Context and History
D:	Cleanup Work to Date
E:	Acronyms
F:	Glossary of Terms
G:	Additional Information Resources

The Site: At a Glance

Where Is the Portland Harbor Site?

The study area is a contaminated 11 river-mile-long section of the Willamette River from Broadway Bridge in downtown Portland to just upstream of where the Willamette and Columbia Rivers meet.

What Happened?

More than a century of industrial uses left areas of Portland Harbor contaminated with different hazardous substances. They include polychlorinated biphenyls (PCBs), heavy metals, polynuclear aromatic hydrocarbons (PAHs), dioxin/furans and pesticides.

Why Are We Cleaning It Up?

The EPA is overseeing studies that look at ways that people and wildlife may be exposed to contamination at the site and, if so, whether the possibility of harmful effects is great enough that a cleanup is needed. Based on those studies, the EPA has determined that risks posed by the Portland Harbor site are high enough to take action.

Eating Portland Harbor resident fish such as bass, catfish and carp, is a health risk, especially for subsistence fishers and infants breast fed by mothers who eat resident fish. PCBs are the primary contaminant associated with most of the risk from eating Portland Harbor fish.

What Is Going on Now?

The EPA is reviewing options to clean up Portland Harbor. The options are presented in a document

called the feasibility study. After the study has been finalized, the EPA will develop a proposed cleanup plan, which is anticipated in 2014. This Proposed Plan will review cleanup options and propose a preferred course of action for cleaning up Portland Harbor. After carefully considering public input on the Proposed Plan, the EPA will issue a Record of Decision (ROD) selecting a remedy for the site. The ROD likely will not be in place before 2015.

Cleanup of the river will be coordinated with cleanup and pollution control efforts on land-based properties that are sources of river contamination. ODEQ is overseeing these efforts. Until then, the EPA and ODEQ will continue to meet with the public to provide updates, answer questions and listen to community concerns.

What Are the Project's Goals?

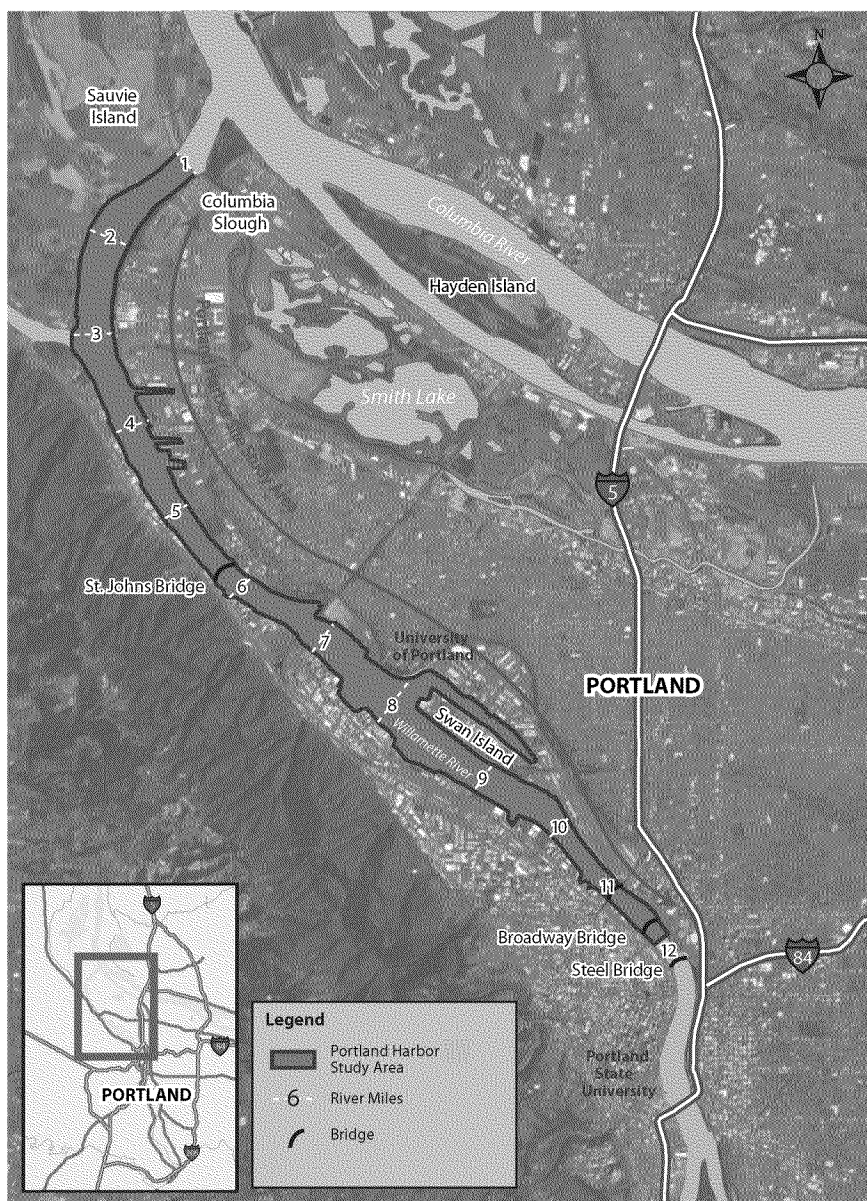
- Clean up contaminated sediment and decrease pollution sources to reduce the risk for people eating resident fish from the lower Willamette River and for wildlife and fish in the area.
- Provide better habitat for wildlife and fish and coordinate cleanup actions with habitat restoration projects in the lower Willamette River.
- Allow recreational and other river uses that also continue to support navigation, industry, commerce and jobs in Portland Harbor.

EPA and ODEQ Contacts

Contact us if you have questions or need more information about this plan or the Portland Harbor site:

- Alanna Conley, EPA Community Involvement Contact: (503) 326-6831 | conley.alanna@epa.gov
- Chip Humphrey, EPA Project Manager: (503) 326-2678 | humphrey.chip@epa.gov Add Kristine
- Marcia Danab, ODEQ Community Involvement Contact: (503) 229-6488 | danab.marcia@deq.state.or.us
- Jim Anderson, ODEQ Project Manager: (503) 229-6825 | anderson.jim@deq.state.or.us

To learn more, visit the EPA's Portland Harbor Web page at www.epa.gov/region10/portlandharbor or ODEQ's Web page for information on source control at www.deq.state.or.us/lq/cu/nwr/portlandharbor.



Aerial view of the Portland Harbor study area

A Closer Look

The Portland Harbor Superfund site study area is located on the lower Willamette River, between the Broadway Bridge in downtown Portland and the Columbia Slough, just upstream of where the Willamette and Columbia Rivers meet. The working Portland waterfront is heavily industrialized and zoned primarily for commercial and industrial uses.

In addition to industrial activities, tribal fishing for both subsistence and ceremonial purposes has occurred historically and continues to be a key activity along the river. Other people also use the river for subsistence fishing. **Subsistence fishing**

refers to fishing, other than sport fishing, that provides a source of food, up to a substantial source of food for the fisher or the fisher's family. People fish in Portland Harbor from boats and from locations along the banks. Many fish species such as salmon and steelhead migrate through Portland Harbor and the Willamette River. Unlike migratory fish, **resident fish** such as bass, catfish and carp may spend their entire life cycle in Portland Harbor.

Fish-eating birds, migratory waterfowl and raptors seasonally visit the lower Willamette River. Swimming, boating and community recreational

Portland Harbor Superfund Site Community Involvement Plan

events are other uses that bring people in contact with Portland Harbor. Transient communities, which spend a short time in an area, have also been observed living along some riverbank areas.

In December 2000, the EPA added Portland Harbor to the Superfund program's National Priorities List of contaminated sites based on the results of a 1997 sediment sampling study. The list identifies the nation's most contaminated sites. Hazardous substances currently found at Portland Harbor are harmful to humans, fish and wildlife. The EPA has focused on evaluating the risks posed at the site and determined that there is a risk to public health from eating resident fish.

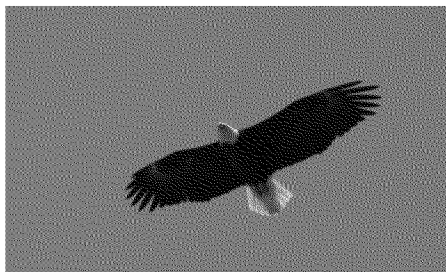
Since several years prior to the listing, ODEQ has been cleaning up sources of contamination at industrial sites along the banks of the river. ODEQ has continued this work from the December 2000 listing to the present. The objective of ODEQ's source control work has been to identify, evaluate and control upland sources of contamination that pose a direct risk to river users and to prevent recontamination of any in-river cleanup action. ODEQ's source control work is

guided by the December 2005 ODEQ/EPA Portland Harbor Joint Source Control Strategy, available at www.deq.state.or.us/lq/cu/nwr/PortlandHarbor/jointsource.htm.

ODEQ also periodically publishes a document describing the status, next steps and schedule for Portland Harbor source control. This document, the Milestone Report – Upland Source Control at the Portland Harbor Superfund Site, is available at www.deq.state.or.us/lq/cu/nwr/PortlandHarbor/jointsource.htm.

In addition to overseeing the Lower Willamette Group's Portland Harbor investigation efforts, EPA has also overseen a number of in-river Early Actions. An Early Action is a remedial action completed before the final remedy for the site is selected in the Record of Decision. Both ODEQ source control work and EPA's Early Actions are briefly described in Appendix D of this plan.

For additional background information, please see Appendix G for fact sheets about Portland Harbor.



Wildlife in Portland Harbor

Community Background

Diverse neighborhoods, organizations, schools, businesses, religious institutions, the University of Portland, and government offices are located within a 5-mile radius of the Portland Harbor site. Twenty-four percent of people living within 5 miles of

Portland Harbor are minorities; fifteen percent of homes are non-English speaking households. Area neighborhoods include Spanish-speaking, Vietnamese and Russian/Slavic communities.

Community Data		
	5-Mile Radius	Portland, Oregon (Multnomah County)
Race % Minority	24%	30%
Race % White	80%	81%
Speak English Only	85%	81%
Non-English Spoken at Home	15%	19%
Age of Population (less than 18 years old)	24%	21%
Education (High School Diploma)	16%	21%
Per Capita Income	\$34,383	20%
Household Income Less Than \$15,000	14%	\$28,883
Title 1 Public Schools	12	14%
<i>Source: U.S. Census Bureau, American Community Survey (ACS) 2006-2010</i>		

Portland Harbor Community Advisory Group (CAG)

A group of interested citizens and organizations formed a Community Advisory Group, or CAG, for the Portland Harbor site. The Portland Harbor CAG provides a public forum for community members to learn about the site and share community needs and concerns. The CAG also provides input and

feedback to EPA Region 10 and ODEQ on how to clean up the site by offering a valuable opportunity to hear and consider community perspectives on site plans and activities.

Participate in future Portland Harbor CAG meetings

- Contact CAG Chair Jim Robison at 503-285-4805 or jim@jimrobison.org.
- Attend a CAG meeting held on the second Wednesday of every month at 6:00 p.m. at the Water Pollution Control Laboratory at 6543 North Burlington Avenue, under the St. Johns Bridge. All CAG meetings are open to the public. Sign up to receive email invitations and meeting agendas at bit.ly/ptIndhrbr.

Other Community Partners

We recognize that there are community members and organizations not represented on the CAG. Therefore, it is important that we reach out regularly to others interested in the Portland Harbor site to be sure we hear their ideas and concerns. Some of the community groups that we have connected with include the Portland Harbor Coalition, the Latino Network, the Slavic Immigrant Association, Ecumenical Ministries Oregon, the Coalition of Black Men, the Oregon Environmental Justice Task Force, and North Portland neighborhood associations. We will also use public

information sessions, fact sheets, websites, one-on-one discussions, and participation in community events as ways to share information with the broader community. If you are aware of specific community needs near the site, please let the EPA and ODEQ know. We can translate and publish material in local media, host informal meetings, and meet one-on-one to make sure people's concerns are heard and that people are up to date on the site's status. Page nine provides more information.

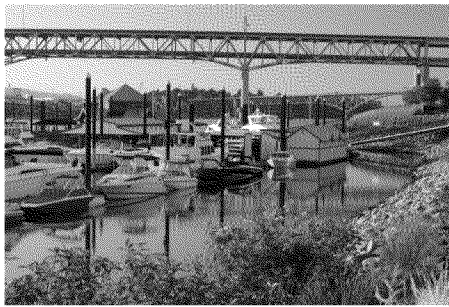
Willamette Riverkeeper

The Willamette Riverkeeper has been a community resource, sharing information and reaching out to the public about Portland Harbor cleanup activities. The EPA advertised the availability of a technical assistance grant in December 2000 and awarded it to the Willamette Riverkeeper in August 2001. The

purpose of the grant is to provide funds for a technical advisor to support the CAG. The advisor helps community members understand scientific and technical information related to the investigation and cleanup of Portland Harbor.

To Learn more about the Willamette Riverkeeper

- Contact Executive Director Travis Williams at 503-223-6418 or travis@willametteriverkeeper.org.
- Visit the organization's website at www.willamette-riverkeeper.org.



Personal Privacy / Ex. 6

Land uses in Portland Harbor

What We Have Heard So Far

To make sure EPA Region 10 and ODEQ remain up to date on community concerns and priorities regarding the Portland Harbor site, we participated in and hosted a series of activities in 2012. These venues included Portland Harbor CAG meetings and the CAG's 2012 Field Day, neighborhood association meetings, public involvement sessions, and focus groups. We also did a lot of one-on-one outreach, visiting local neighborhoods and meeting with area organizations.

Here is a brief summary of the community feedback shared with EPA Region 10 and ODEQ during these activities.



Community Requests

- Ensure that outreach efforts include underrepresented communities.
- Provide regular site status updates to area communities on upcoming site activities and make sure they are regularly involved in site discussions and meetings.
- Have EPA site staff attend community meetings and share updates.
- Host non-technical meetings where people can share their thoughts, ask questions and provide input in an informal setting.
- Help identify community demographics.
- Coordinate the cleanup with efforts to prevent the recontamination of the harbor.
- Maintain the continued economic viability of the harbor and the Portland metropolitan area.
- Enable educational opportunities for students to learn about the site and its cleanup.
- Respond to community concerns about the placement of a confined disposal facility (CDF) and explore alternative treatment technologies.
- Make sure the site's responsible parties pay their fair share of the cleanup.
- Provide periodic briefings to the media and local, state and federal elected officials.
- Give semi-annual presentations on the site's status, milestones and next steps to the Swan Island Business Association.

Community Suggestions

General

- To reach underrepresented communities, translate materials into Spanish, Vietnamese and Russian and share the information using ads in newspapers, public service announcements on the radio and television, and articles in community newsletters.
- Direct community outreach is also effective. Attending community celebrations and ethnic festivals is a good way to reach different communities and neighborhood associations in the area.

Portland Harbor Superfund Site Community Involvement

- Continue working with local non-profit community organizations to help share site information.

For Outreach to Spanish-Speaking Communities

- There is a need for more public awareness regarding the health risk posed by eating resident fish from Portland Harbor. People are catching and eating the fish.
- Information sharing needs to reach families and children. Possible options include passing out information in Spanish in schools, churches and community centers, and placing television commercials on the local Spanish channel and ads in the community outreach section of the *El Latino de Hoy* newspaper. Other options include hosting afterschool programs, providing public service announcements on Radia Latina, providing information during free-lunch-in-the-park programs, the Explorando el Colombia Slough Festival, Portland Sunday Parkways and the Laura Media Health Fair, and working with the Northwest Family Services organization to coordinate meetings and outreach.



For Outreach to Vietnamese Communities

- There is a need for more public awareness regarding the health risk posed by eating resident fish from Portland Harbor. People are catching and eating the fish.
- People are very concerned about their health and being healthy. Outreach should focus on Vietnamese neighborhoods in southeast and southwest Portland, along 82nd Avenue, Powell Boulevard, Division Street, Foster Road and Glisan Street.
- Public notices and warning signs work well. Ads highlighting the fish advisory in the *Phuong Dong Times* newspaper would also work well.
- There is a need for translation services.

For Outreach to Russian and Slavic Communities

- There is a need for more public awareness regarding the health risk posed by eating resident fish from Portland Harbor. Eastern European groups fish the harbor most heavily on weekends.
- The EPA should work with Orthodox Christian churches in the area and Russian Oregon Social Services on outreach efforts. Attending and sharing information at community festivals is also a good option.

Community Questions and Concerns

- Where and how should contaminated sediments be disposed of?
- Will businesses be able to continue to operate during and after the cleanup?
- How will people know that the fish in the harbor are safe to eat?
- Will the involvement of different government agencies and tribal governments slow down the investigation and cleanup?
- How will agencies post and advertise unsafe conditions?
- How do contaminated sediments affect water quality?
- How much contamination is there; how far does it extend?
- Some members of the community have expressed a preference for dredging over capping as part of site cleanup.

- Some community members have expressed concern over the use of rigid containment versus silt curtains.
- Others have expressed concern about PCB volatilization.
- Some members of the community have asked about the impact of earthquakes on caps placed over contamination and the use of confined disposal facilities.

Community Involvement Objectives

Based on the community feedback EPA Region 10 and ODEQ received in 2012, our goals for the site's updated Community Involvement Plan are to:

- Make sure the cleanup process reflects community interests and priorities.
- Provide regular and timely information about upcoming cleanup activities and future plans.
- Continue to work with all affected communities and other interested parties, maintaining regular and open dialogue to respond to questions and concerns as they arise.
- Identify and reach out to other communities not represented on the CAG to make sure their voices are heard and partner with the Oregon Health Authority to reach historically underrepresented communities.
- Evaluate the effectiveness of this Community Involvement Plan and make changes as needed.

Community Involvement Activities

The EPA and ODEQ have developed public outreach activities that we plan to use to keep you informed. Audiences for these efforts will include people who may be:

- Affected by environmental impacts or cleanup work in Portland Harbor.
- Involved in site investigation activities or cleanup activities.
- Interested in cleanup work in the harbor or issues related to the Willamette River.
- Responsible for the general welfare of area communities, businesses, organizations and governments.

How You Can Stay Informed

Review Portland Harbor Reports:	The EPA will make reports, documents and other relevant materials accessible to the public by posting them on the EPA's Portland Harbor website and sending email notification of their availability. EPA Region 10 will also make hard copies available in the Multnomah County Central Library and in EPA's Oregon Operations Office. Copies of reports will also be available on CD-ROMs upon request. Appendix E: Acronyms, and Appendix F: Glossary of Terms, are resources for community use while reading these materials.
Participate During Public Comment Periods:	Comments received by the EPA during public comment periods will be shared with project managers and the project team, placed in the administrative record, and will be addressed in the responsiveness summary that will be included with EPA's ROD. Comments received outside of formal public comment periods will also be shared with project managers and the project team and placed in the administrative record. They will not receive a written response.
Attend and Participate in CAG Meetings:	EPA and ODEQ staff will continue to work closely with the Portland Harbor CAG, attending meetings, providing information and serving as resources to answer

Portland Harbor Superfund SiteCommunity Involvement Plan

Invite Us to Your Community Event or Meeting:	community questions. As funding is available, the EPA plans to continue supporting the site's technical assistance grant to provide independent technical review and interpretation of project information for the community.
Attend Public Information Sessions:	EPA and ODEQ staff are available to meet with community members, neighborhood associations and other site stakeholders to discuss the site's status and keep up-to-date on community issues and concerns. We are available to attend regularly scheduled meetings of community groups and neighborhood associations upon request.
Briefings for Elected Officials:	The EPA and ODEQ will continue to host periodic open houses, public information sessions and workshops to help make information widely available at significant milestones during the site's cleanup.
Contact Us with Questions or Concerns:	EPA and ODEQ project managers and staff will routinely brief local, state and federal legislators about progress on the Portland Harbor cleanup. These briefings will provide another way for project information to reach local constituents. In return, legislators will be able to share their constituents' concerns with the EPA and ODEQ.
	Alanna Conley and Marcia Danab are the project's community involvement contacts. They are available to talk with anyone who has concerns or questions about the Portland Harbor cleanup. They will share the information they gather with the project team.

Where and How You Can Get More Information about Portland Harbor

Fact Sheets:	The EPA and ODEQ will issue periodic fact sheets about cleanup activities, significant milestones, technical information and project findings. The fact sheets will be sent to the Portland Harbor email list (see below) and posted on the EPA and ODEQ Portland Harbor Web pages. Hard copies of fact sheets will be distributed during CAG meetings and provided to community groups and individuals upon request.
Articles and News Releases:	The EPA and ODEQ may periodically submit articles to trade publications and local newspapers. Public notices for submission of public comments on the Proposed Plan will be posted in one or more newspapers. Significant project news and milestones may be shared by EPA public affairs offices with Portland media outlets.
Portland Harbor Email List:	Site agencies will maintain and regularly update their respective Portland Harbor email lists to make sure stakeholders and neighbors receive information updates. To join the email list, please send a request by email, phone or mail to the EPA or ODEQ contacts listed on page 2. Contact the EPA if you should need printed copies.
Information Repositories:	Reports, technical documents and other information requested from the EPA and ODEQ can be delivered to Multnomah County Central Library (801 SW 10th Avenue, Portland OR 97205 (503) 988-5123) for public review.
Websites:	The EPA and ODEQ maintain project websites where people can access site information. To access the EPA Portland Harbor website, visit www.epa.gov/region10/portlandharbor . To access ODEQ's website, visit www.deq.state.or.us/lq/cu/nwr/PortlandHarbor/index.htm .

Reaching Targeted Communities

Outreach to Targeted	Reaching historically underrepresented communities near the site whose residents
-----------------------------	--

Communities:

may not attend CAG and other site meetings is a priority. To make sure we do so, the EPA and ODEQ will continue to host and participate in discussions and partner with the Oregon Health Authority to help identify the needs, concerns and priorities of these communities. In addition to measures outlined elsewhere in this document, we will continue to make special efforts to reach the following groups in affected communities:

- *Subsistence fishers:* We will continue to work with the Oregon Health Authority and the Willamette Riverkeeper to develop and post signs near boat launches and in community parks, have interagency information booths at local events, and provide multilingual information about the site and health risks from eating resident fish.
- *Non-English speaking groups:* If you need site information translated into other languages, please let us know. We are able to provide materials in Chinese, Russian, Spanish, Hmong, Vietnamese and other languages upon request.
- *Tribal populations:* We will work with tribal governments to identify specific tribal information and education needs and share project updates. We are available to participate in meetings, provide presentations and participate in events.

Community Involvement Plan Review:

We will ask for feedback on our community involvement efforts through public information sessions and comments received by email and phone. The EPA will update the Community Involvement Plan over time as needed.

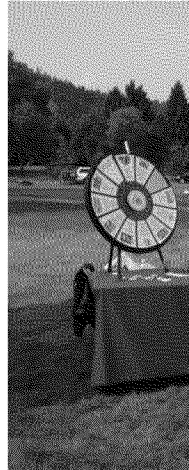
Community Outreach and Involvement Activities for 2013 and Beyond (estimated dates)*	
Ongoing	Participation in monthly CAG meetings, neighborhood association meetings and presentations to community groups upon request.
	Responding to information requests from residents.
	Attending community festivals and other outreach events.
	Meeting with community groups as requested.
	Providing updates during Oregon Environmental Justice Task Force meetings.
	Updating and involving project partners – local, state and federal agencies and tribal governments.
	Briefing local, state and federal elected officials.
April 2013	Outreach and announcement on additional studies for River Mile 11 East.
April – May 2013	Presentation to the Portland Harbor CAG on EPA's comments on draft feasibility study, final human health risk assessments, River Mile 11 East studies and fish tissue sampling.
	Human health risk assessment and ecological risk assessment fact sheets available to the public. Fact sheets will be provided via email and EPA website. Hard copies will be distributed to community groups and mailed upon request.
May 2013	Human health and ecological risk assessments finalized and made available for public review at Multnomah County Central Library, EPA's Oregon Operations Office and on EPA website. CD-ROM copies are available upon request.
	Community Involvement Plan provided for public review, posted on site Web page, sent to site email list, and shared with community partners and tribal governments.
	ODEQ upland source controls update presented during CAG meeting.
Spring – Summer 2013	Agency participation in community outreach events and provision of educational information on risks from eating resident fish.
Summer 2013	Site update presentation to Swan Island Business Association.
Spring – Summer 2014	Portland Harbor public information sessions. Sessions to provide overview of site status and next steps to help prepare community for site's Proposed Plan.
Winter 2014 (one month prior to issuance of Proposed Plan)	Proposed Plan fact sheets and frequently asked questions (FAQs) available to the public.
	Public meetings and community presentations on draft Proposed Plan.
Winter 2014	Draft Proposed Plan provided for public review, posted on site Web page, sent to site emailing list, and shared with community partners

Portland Harbor Superfund Site Community Involvement Plan

	and tribal governments.
	Notifications of draft Proposed Plan availability published in multiple languages in local media.
	Public information session on draft Proposed Plan.
Winter 2014 (30-120 days):	Public comment period on the draft Proposed Plan.
2014 and Beyond:	Finalized Proposed Plan.
	Tribal consultation (prior to issuance of ROD)
	ROD fact sheets and FAQs available to the public.
	Public meetings and community presentations on the draft ROD.
	ROD provided for public review, posted on site Web page, sent to site email list, and shared with community partners and tribal governments.
	Notifications of draft ROD availability published in multiple languages in local media.
	Public information session on draft ROD.
	State concurrence with ROD.
	Finalized ROD.
	Remedial design and remedial action.

EPA community involvement activities for the Portland Harbor site in 2012 included site tours and information booths at community events.





Regulatory Overview

The site agencies and trustees' work in Portland Harbor is governed by the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), as amended by the Superfund Amendments and Reauthorization Act (SARA) of 1986 as well as the State of Oregon's Environmental Cleanup Law (Oregon Revised Statutes 465-200 et. seq.), the Clean Water Act, the Endangered Species Act and other applicable laws and regulations.

Roles

and Responsibilities

Site Agencies

The EPA and ODEQ signed a Memorandum of Understanding in February 2001 to work collaboratively on the cleanup of the Portland Harbor site. The EPA is responsible for investigation and cleanup of contaminated sediments in the river. ODEQ is the lead agency for investigation and cleaning up upland sites along the banks of the river. ODEQ is also responsible for coordinating the Portland Harbor work with other state and local efforts such as the Governor's Oregon Plan and the City of Portland Combined Sewer Overflow (CSO) project.

Portland Harbor Natural Resource Trustees

EPA Region 10 and ODEQ are also part of a larger intergovernmental project team that includes natural resource trustee agencies and governments designated by law to act on behalf of the public or tribes to restore natural resources such as salmon, migratory birds and their habitat. To coordinate their damage assessment and restoration planning actions, the trustees for Portland Harbor natural resources formed the Portland Harbor Natural Resource Trustee Council in 2002.

The trustees involved in the Portland Harbor project include the U.S. Fish and Wildlife Service, the National Oceanic and Atmospheric Administration, the Oregon Department of Fish and Wildlife and six tribal governments. The tribal governments are the Confederated Tribes and Bands of the Yakama Nation, the Confederated Tribes of the Grand Ronde Community of Oregon, the Confederated Tribes of Siletz Indians, the Confederated Tribes of the Umatilla Indian Reservation, the Confederated Tribes of the Warm Springs Reservation of Oregon, and the Nez Perce Tribe..

The relationship and responsibilities of the intergovernmental project management team are also established in the site's February 2001 Memorandum of Understanding. The Memorandum is available at the EPA and ODEQ websites or upon request from the agencies.

This Community Involvement Plan serves as a basis for providing information to the general public and affected tribal community members. EPA and ODEQ staff will continue to work with the tribal representatives of the intergovernmental project team to identify the specific needs of tribal members. Both the EPA and ODEQ have obligations to consult with tribal governments on a government-to-government basis, and the EPA has a trustee responsibility to the tribes as a federal agency. Community outreach activities are separate from trustee responsibilities and consultation between governments.

Potentially Responsible Parties

The EPA has identified about 150 parties that are potentially responsible for site cleanup costs. The Lower Willamette Group is a coalition of Portland Harbor businesses and public agencies who stepped forward to participate in site investigations and cleanup. The Group signed an Administrative Order on Consent to conduct the site's remedial investigation, human health and risk assessment, and feasibility study under EPA oversight. Once a cleanup plan is in place, EPA Region 10 will request that the parties negotiate an agreement to fund and implement the site's cleanup. For more information, visit wgportlandharbor.org.

Working Together for Cleanup



EPA Region 10
Cleanup of Willamette River sediments



Oregon DEQ
Cleanup of upland sites



Lower Willamette Group and
Other Responsible Parties
Remedial investigation and feasibility
study; site cleanup costs



Portland Harbor CAG
Community forum for education,
information sharing, input into site
decision-making



Portland Harbor Natural
Resource Trustee Council
Natural resource damage assessment
and restoration planning



What's Next in the Cleanup Process

The remedial investigation and feasibility study (RI/FS) for the Portland Harbor site is nearing completion. This stage of the Superfund process identifies the locations, types and amounts of contamination in the harbor. The Lower Willamette Group submitted the site's RI Report to the EPA in October 2009. The site's draft FS Report was submitted to the EPA in March 2012. The report includes ecological and human health risk assessments looking at the risks posed to people, fish, wildlife and plants by contaminated sediment at the site. The EPA is currently reviewing the draft FS Report.

Once finalized, the EPA will use the FS Report to help prepare a plan to clean up Portland Harbor. The Proposed Plan will summarize cleanup alternatives and propose a preferred course of action. The EPA will ask for public comments on the Proposed Plan. Tribal consultations and a review by ODEQ will also take place.

After carefully considering public input on the Proposed Plan, the EPA will issue a Record of Decision (ROD) for Portland Harbor. The EPA will then negotiate with the site's potentially responsible parties to design and put the selected remedy in place.

ODEQ is the lead agency overseeing Portland Harbor upland source control. The objective of upland source control is to identify, evaluate and control sources of contamination that threaten the river in the Portland Harbor study area. ODEQ's goal is to control these sources by the time of the Portland Harbor ROD, particularly so that the sources do not pose a threat of recontaminating in-river cleanup actions. ODEQ will continue to work with upland responsible parties to control sources through the Proposed Plan and ROD if necessary.

The table on page 12 provides dates and timeframes for upcoming EPA site activities and milestones.

The Feasibility Study

The Feasibility Study outlines the different methods available for sediment cleanup and describes a wide range of ways to combine those methods into cleanup alternatives.

Methods to clean up contaminated sediment include:

- Digging it up (dredging).
- Covering it with clean soil (capping).
- Treating it in place (in-situ treatment).
- Allowing cleaner upriver sediments to cover it up (natural recovery).

Dredging

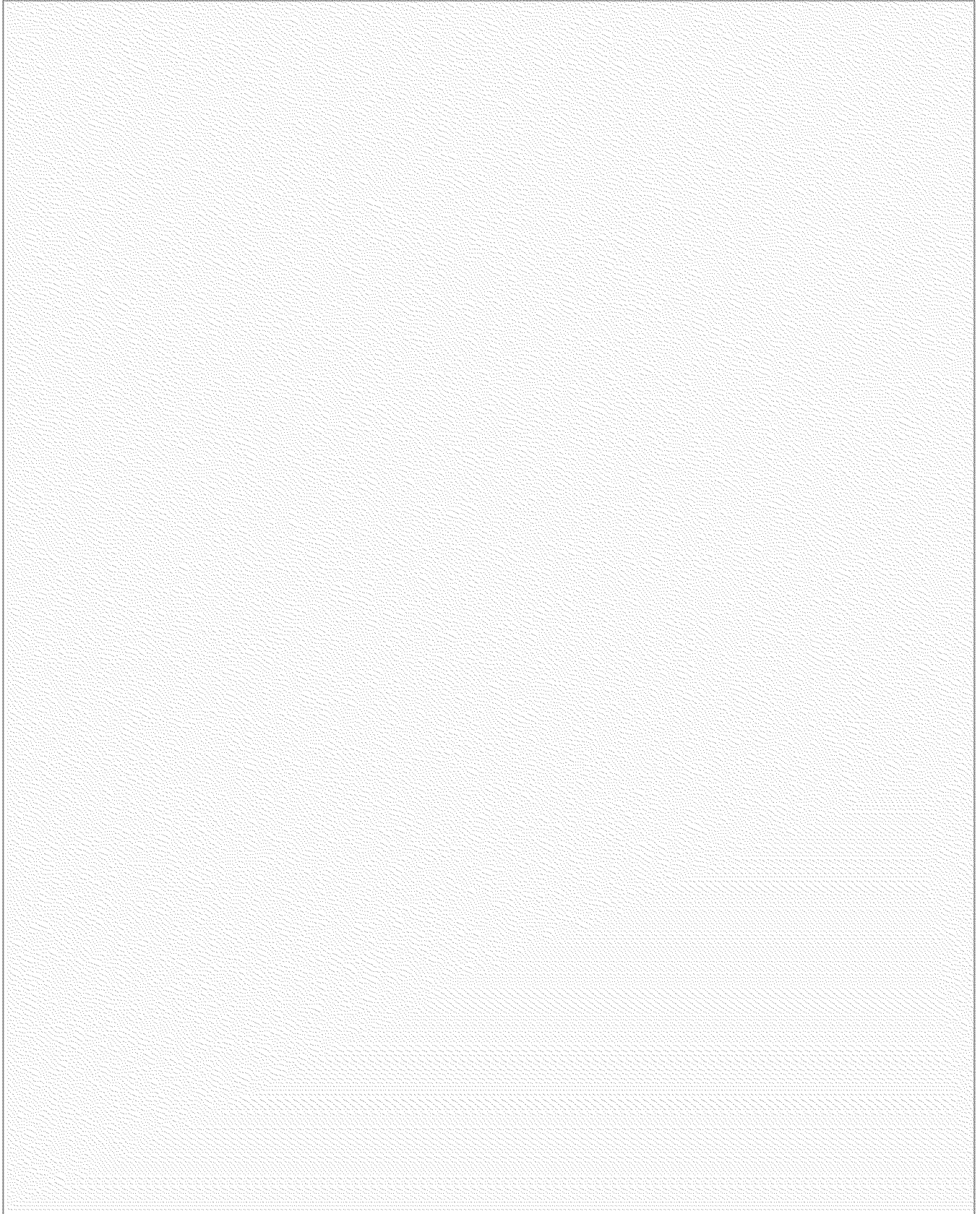


Capping



You can review the draft FS Report at the Multnomah County Central Library or online at www.epa.gov/region10/portlandharbor.

Notetaking Page for Your Thoughts
(issues, concerns and priorities to share with EPA Region 10 and ODEQ)



Appendix A: Superfund Community Involvement Activities

The activities proposed in this Community Involvement Plan for Portland Harbor include public involvement requirements established by law or regulation for all Superfund sites. The information in this appendix has been included as a helpful reference. The citation at the end of each paragraph uses the following abbreviations:

- NCP: National Contingency Plan
- CERCLA: Comprehensive Environmental Response, Compensation and Liability Act (Superfund)
- CFR: Code of Federal Regulations

The numbers and letters in parentheses indicate the chapter, section and paragraph where this information originates. People can request copies of these laws and regulations from any EPA office.

Upon Completion of the Feasibility Study and Proposed Plan

Site Activity: RI/FS and Proposed Plan Notification and Analysis

Minimum Requirements: The lead agency must publish a notice of the availability of the RI/FS and Proposed Plan, including a brief analysis of the Proposed Plan, in a major local newspaper of general circulation. The notice also must announce a comment period.

Reference: SARA 117(a) and (d); NCP 40 C.F.R. 300.430(f)(3)(i)(a)

Site Activity: Public Comment Period on RI/FS and Proposed Plan

Minimum Requirements: The lead agency must provide at least 30 days for the submission of written and oral comments on the Proposed Plan and supporting information located in the information repository, including the RI/FS. The agency will extend this comment period by a minimum of 30 additional days upon timely request.

Reference: SARA 113(k); NCP 40 C.F.R. 300.430(f)(3)(c)

Site Activity: Public Meeting

Minimum Requirements: The lead agency must provide an opportunity for a public meeting regarding the Proposed Plan and supporting information at or near the site during the comment period.

Reference: SARA 113 and 117(b); NCP 40 C.F.R. 300.430(f)(3)(i)(D)

Site Activity: Meeting Transcript

Minimum Requirements: The lead agency must have a court reporter prepare a publicly available meeting transcript.

Reference: SARA 117(a)(2); NCP 40 C.F.R. 300.430(f)(3)(i)(E)

Site Activity: Revised Proposed Plan and Public Comment

Minimum Requirements: Upon the lead agency's determination that the public could not have reasonably anticipated such changes, the agency must issue a revised Proposed Plan that includes a discussion of the significant changes and the reasons for such changes. The Agency must seek additional public comment on the revised Proposed Plan

Reference: NCP 40 C.F.R. 300.430(f)(3)(ii)(B)

After the Record of Decision (ROD) Is Signed

Site Activity: ROD Availability and Notification

Minimum Requirements: The lead agency must make the ROD available for public inspection and copying at or near the site prior to the commencement of any remedial action. In addition, the lead agency must publish a notice of the ROD's availability in a major local newspaper of general circulation. The notice must state the basis and purpose of the selected action.

Reference: NCP 40 C.F.R. 300.430(f)(6)

Site Activity: Revision of the Community Involvement Plan

Minimum Requirements: Prior to the remedial design, the lead agency should revise the CIP, if necessary, to reflect community concern, as discovered during interviews and other activities, that pertain to the remedial design and construction phase.

Reference: NCP 40 C.F.R. 300.435(c)(1)

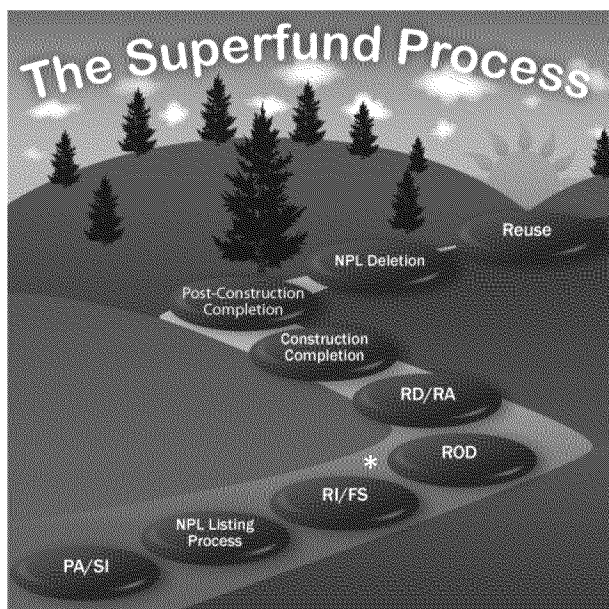
Remedial Design

Site Activity: Fact Sheet and Public Briefing

Minimum Requirements: Upon completion of the final engineering design, the lead agency must issue a fact sheet and provide a public briefing, as appropriate, prior to beginning remedial action.

Reference: NCP 40 C.F.R. 300.435(c)(3)

Appendix B: The Superfund Process



Source:

www.epa.gov/superfund/community/process.htm

Event	Complete at Portland Harbor?	Description
Preliminary Assessment / Site Investigation (PA/SI)	✓	Initial investigations of site conditions.
NPL Listing	✓	Placement of site on the EPA's list of the most serious hazardous waste sites identified for long-term cleanup under Superfund.
Remedial Investigation / Feasibility Study (RI/FS)	Reports submitted but not yet finalized	Studies to determine the nature and extent of contamination.
* Proposed Plan	2014	Document summarizing proposed site remedy. EPA solicits public comments on it before ROD completion.
Record of Decision (ROD)		Decision document selecting site remedy.
Remedial Design / Remedial Action (RD/RA)		Preparation and implementation of plans and specifications for site remedies.
Construction Completion		Completion of physical cleanup construction (cleanup may remain ongoing).
Post-Construction Completion		Activities ensuring Superfund response actions provide for long-term protection of human health and the environment.
NPL Deletion		Removal of site from NPL once all response actions are complete and all cleanup goals achieved.
Reuse		Return of site properties to safe and productive use following cleanup.

Appendix C: Area Context and History

The city of Portland is located in Multnomah County, Oregon. About 15 percent of the state's population – 584,000 people – lives in Portland. The Portland metropolitan area has a population of about 2.3 million.

Historically, the area's economy focused on the harvest of fish, timber, minerals and agricultural products. The principal industries of the Portland metropolitan area are now manufacturing, tourism, transportation, and wholesale and retail trade.

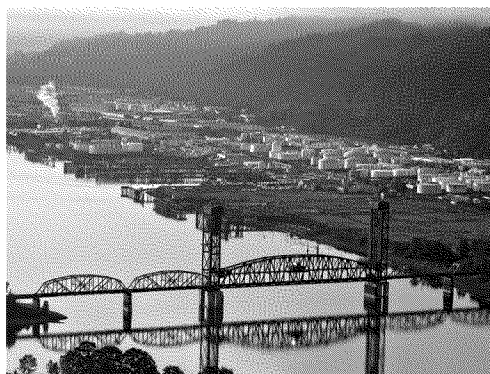
Portland Harbor is one of the busiest seaports on the Pacific Coast. Since the mid-1800s, when the first wharves began supporting international and intercoastal steamship service, the shoreline of the river near Portland has been altered for urban development and a growing shipping industry. The first dredging of the river took place in 1968. Since that time, the Willamette River has been dredged regularly for navigation and maintenance.

The Willamette River

The Willamette River runs through the middle of Portland, flowing north through the city to where it joins the Columbia River. The shoreline has steep banks, many covered with riprap or constructed bulkheads. Many piers and wharves extend out over the water. To accommodate shipping, the river has been extensively dredged. Channel depths currently range from 10 to 140 feet, with an average depth of 45 feet. As the river flows through Portland, it is deep and slow moving, and the water level rises and falls from tidal influence.

The Port of Portland is a hub for goods importing and exporting in the region. Past and present industrial operations in Portland Harbor include:

- Marine construction
- Bulk petroleum product storage and handling
- Construction material manufacturing
- Oil fire-fighting training activities
- Oil gasification plant operations
- Pesticide and herbicide manufacturing
- Wood treating operations
- Agricultural chemical production
- Battery processing
- Liquid natural gas plant operations
- Hazardous waste storage
- Chlorine production
- Ship loading and unloading
- Ship maintenance, repair and refueling
- Rail car manufacturing
- Metal scrapping and recycling

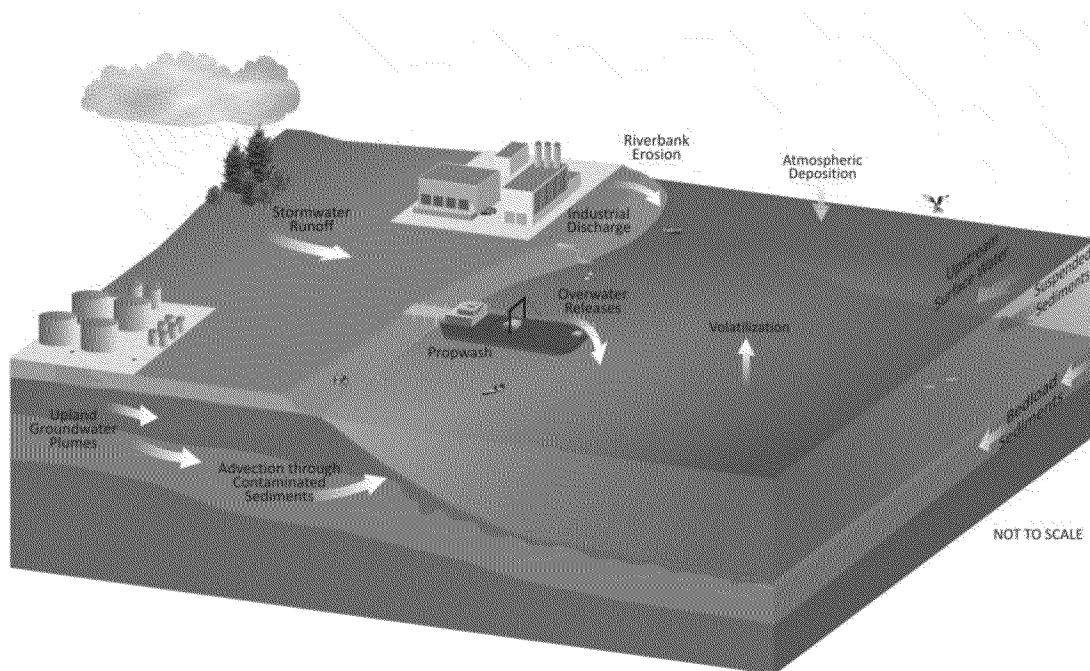


In addition to the major industrial activities along the river and in Portland Harbor, other equally important uses benefit the region. Recreational users boat and swim in the area. Recreational and subsistence fishing takes place in the harbor and up and downstream. Tribal fishing for both subsistence and ceremonial purposes continues to be a key activity. Recent studies identified many species of fish and wildlife species using Portland Harbor and the Willamette River as a migratory pathway, including threatened and endangered runs of salmon. Fish-eating birds, migratory waterfowl and raptors seasonally visit the lower Willamette River and Spring Chinook support sport and recreational fishing.



Aerial view of Portland Harbor in 1921

The Willamette River was used historically for transportation, water supply and waste disposal. Disposal of raw sewage and waste degraded water quality. By the 1920s, water pollution made the water unsafe for human use and toxic for wildlife. In the 1950s, the City of Portland put a sewage management plan in place to minimize the discharge of raw sewage into the river. Other cleanup activities in Portland Harbor and surrounding portions of the Willamette River have been ongoing since the early 1970s. There were controls placed on industrial discharges and municipal waste disposal facilities built throughout the Willamette Basin. Today, these environmental cleanups, controls and regulations have either eliminated or greatly reduced the number of contaminant discharges to the river and the mass of contamination reaching the river.



Appendix D: Cleanup Work to Date

Cleanup of several areas is already underway. Some of these cleanup activities are complete.

Early Action Cleanup Areas

Early action cleanup areas are parts of the Portland Harbor Superfund site that may become a threat to people or the environment before long-term cleanup is completed.

- **River Mile 11 East** – EPA entered into a settlement agreement in April 2013 with several potentially responsible parties to conduct additional investigations along a section of Portland Harbor known as River Mile 11 East (11E). This area is generally located between the Fremont and Broadway Bridges on the east side of the Willamette River. Previous studies show this area has elevated concentrations of PCBs and other contaminants. The purpose of the supplemental remedial investigations for River Mile 11E is to obtain additional information needed to select and design the cleanup remedy for this section of the Portland Harbor site. The intent is to begin cleanup of River Mile 11E and other hot spots (areas with elevated contaminant concentrations) such as Arkema and Gasco-Siltronic before starting cleanup of the rest of the Superfund site.
- **Arkema** – Former pesticide manufacturing facility contaminated with high levels of DDT and other chemicals. An early action is underway to address this "hot spot" in Portland Harbor.
- **Gasco-Siltronic** – Former manufactured gas plant contaminated with tar deposits from past manufacturing. Removal of tar deposits in the river (brown material in the picture to the right) finished in fall 2005.
- **Terminal 4** – Former industrial site contaminated with pesticides, PCBs, metals and PAHs. These contaminants are the focus of the early action cleanup.
- **Triangle Park** – A 35-acre former industrial site with soil and groundwater contamination. The University of Portland signed an agreement with the EPA in 2008 to clean up the area as part of its plans for new athletic facilities and trails.
- **U.S. Moorings** – A former industrial site contaminated with metals, solvents, and petroleum byproducts from boat maintenance activities. The feasibility study for the site's cleanup was complete in 2012.



Early action cleanup area location map
(source: 2012 LWG Feasibility Study)



Other Sites

Beginning in the late 1980s, ODEQ's cleanup program began working with parties associated with known releases to Portland Harbor, providing oversight of investigation and cleanup activities at industrial sites along the banks of the river. ODEQ has continued this work from the December 2000 listing to the present. The objective of ODEQ's source control work has been to identify, evaluate and control upland sources of contamination that pose a direct risk to river users and to prevent recontamination of any in-river cleanup action. ODEQ's source control work is guided by the December 2005 ODEQ/EPA Portland Harbor Joint Source Control Strategy, available at www.deq.state.or.us/lq/cu/nwr/PortlandHarbor/jointsource.htm.

At the BP (ARCO) site, for example, ODEQ worked with responsible parties to clean up petroleum contamination from a storage and transport facility. The primary threat from the site was contamination of the Willamette River via ground water migration. Cleanup started in May 2007 and finished in November 2008. ODEQ also periodically publishes a document describing the status, next steps and schedule for Portland Harbor source control. This document, the Milestone Report – Upland Source Control at the Portland Harbor Superfund Site, is available at www.deq.state.or.us/lq/cu/nwr/PortlandHarbor/jointsource.htm.

The EPA listed two other sites – the McCormick and Baxter and Gould sites – on the Superfund program's National Priorities List. The EPA and ODEQ worked cooperatively on site investigations and cleanup.

- **McCormick and Baxter Superfund site** – Former wood treating facility located on the northeast shore of the Willamette River in north Portland. Over the last 15 years, the EPA and ODEQ and agency partners have cleaned up the site and are supporting its return to productive use.
- **Gould Superfund site** – Former lead-acid battery recycling, lead smelting and refining and lead oxide production facility near the Willamette River. Cleanup of contaminated sediment and waste material finished in 2002.

Portland Harbor: Fish Consumption Advisory

Although we work and recreate along Portland Harbor, the primary way people are exposed to contamination from the site is by eating fish such as bass, catfish and carp. These fish, called resident fish, carry levels of chemical contaminants that may cause cancer or developmental problems. PCBs are the primary contaminant associated with most of the risk from eating resident fish. Young children, nursing infants and babies in the womb are the most sensitive to the chemicals: mothers and children should avoid eating Portland Harbor resident fish. For fish advisory information, visit www.healthoregon.org/fishadv or call (877) 290-6767.

FISH ADVISORY

Atención Cháy 注意 Вниманиe 注意

Fish from these waters may be harmful to eat, especially for children, pregnant or nursing women, and women of childbearing age.



SALMON



STEELHEAD





BASS



CATFISH



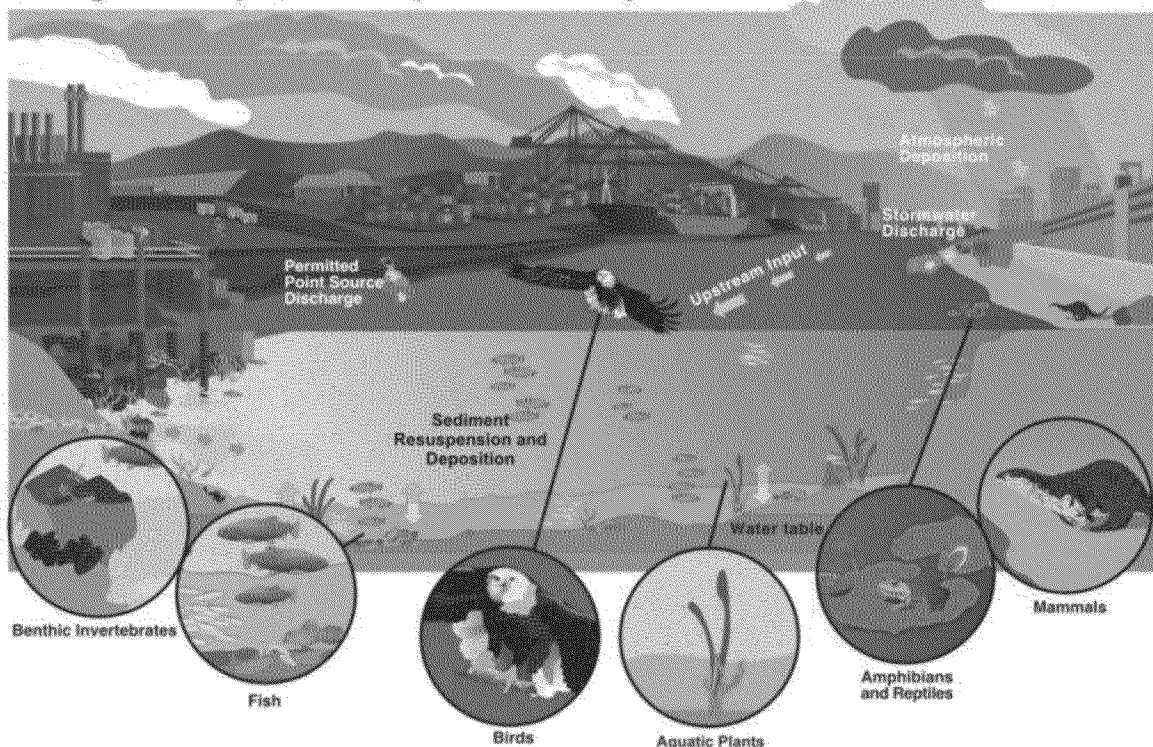
CARP



More information call 1-877-290-6767
www.healthoregon.org/fishadv



Portland Harbor Superfund Site Illustration of Ecological Receptors and Exposure Pathways



Appendix E: Acronyms

AET	Apparent Effects Threshold	ERED	Environmental Residue-Effects Database
AML	Arc Macro Language	ESA	Endangered Species Act
ANOVA	Analysis of Variance	ESU	Evolutionarily Significant Unit
ARAR	Applicable or Relevant and Appropriate Requirement	FDA	U.S. Food and Drug Administration
ARL	Acceptable Risk Level	GIS	Geographic Information System
AST	Aboveground Storage Tank	HEAST	Health Effects Assessment Summary Table
B-COC	Bioaccumulative Chemical of Concern	HI	Hazard Index
BMP	Best Management Practice	HPAH	High Molecular Weight Polycyclic Aromatic Hydrocarbon
BRI	Benthic Response Index	HW	Hazardous Waste
BSAF	Biota-Sediment Accumulation Function	IMMP	Inspection, Maintenance and Monitoring Plan
BT	Bioaccumulation Trigger	ITI	Infaunal Trophic Index
CAS	Chemical Abstract Service	IRIS	Integrated Risk Information System
CBR	Critical Body Residue	IT IS	Integrated Taxonomic Information System
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act	ITM	Inland Testing Manual
CERCLIS	Comprehensive Environmental Response, Compensation, and Liability Information System	LDR	Land Disposal Restriction
CFR	Code of Federal Regulations	LNAPL	Light Non-Aqueous Phase Liquid
COC	Contaminant of Concern	LOAEL	Lowest Observed Adverse Effect Level
COE	Corps of Engineers	LPAH	Low Molecular Weight Polycyclic Aromatic Hydrocarbon
COI	Contaminant of Interest	LSD	Least Significant Difference
COPC	Contaminant of Potential Concern	LUST	Leaking Underground Storage Tank
CPEC	Contaminant of Potential Ecological Concern	MCLG	Maximum Contaminant Level Goal
CPF	Cancer Potency Factor	MCL	Maximum Contaminant Level
CSF	Cancer Slope Factor	NAPL	Non-Aqueous Phase Liquid
CSO	Combined Sewer Outflow	NCP	National Contingency Plan
CWA	Clean Water Act	NFA	No Further Action
DDD	Metabolite of DDT	NMFS	National Marine Fisheries Service
DDE	Metabolite of DDT	NOAA	National Oceanic and Atmospheric Administration
DDT	Dichlorodiphenyltrichloroethane	NOAEL	No Observed Adverse Effect Level
DMEF	Dredged Material Evaluation Framework	NODC	National Oceanographic Data Center
DNA	Deoxyribonucleic Acid	NPDES	Natural Pollution Discharge Elimination System
DNAPL	Dense Non-Aqueous Phase Liquid	NPL	National Priorities List
DO	Dissolved Oxygen	NRDA	Natural Resource Damage Assessment
DQO	Data Quality Objective	NWEA	Northwest Environmental Advocates
DSL	Oregon Division of State Lands	OAR	Oregon Administrative Rules
DWR	Department of Water Resources	OCF	On-Site Containment Facility
ECSI	Environmental Cleanup Site Information Database	ODEQ	Oregon Department of Environmental Quality
EIS	Environmental Impact Statement	ODFW	Oregon Department of Fish and Wildlife
EPA	U.S. Environmental Protection Agency		

Portland Harbor Superfund Site Community Involvement Plan

ODOT	Oregon Department of Transportation	TPH	Total Petroleum Hydrocarbons
ODWR	Oregon Department of Water Resources	TPL	The Trust for Public Lands
ORS	Oregon Revised Statutes	TRV	Toxicity Reference Value
OSA	Orphan Site Account	TSC	Tissue Screening Concentration
PA	Preliminary Assessment	TSS	Total Suspended Solids
PAH	Polycyclic Aromatic Hydrocarbon	TTL	Target Tissue Level
PCB	Polychlorinated Biphenyl	USACE	U.S. Army Corps of Engineers
PCDD	Polychlorinated Dibenzodioxin	USFWS	U.S. Fish and Wildlife Service
PCDF	Polychlorinated Dibenzofuran	USGS	U.S. Geological Survey
PCP	Pentachlorophenol	UST	Underground Storage Tank
PDC	Portland Development Commission	VCP	Voluntary Cleanup Program
PHSMP	Portland Harbor Sediment Management Plan	VOC	Volatile Organic Compound
PPA	Prospective Purchaser Agreement	WRDA	Water Resources Development Act
PRP	Potentially Responsible Party		
PSEP	Puget Sound Estuarine Protocol		
PSY	Portland Ship Repair Yard		
QA/QC	Quality Assurance/Quality Control		
OSA	Orphan Site Account		
RAGS	Risk Assessment Guidance for Superfund		
RAO	Remedial Action Objective		
RCRA	Resource Conservation and Recovery Act		
RD/RA	Remedial Design/Remedial Action		
RDT	Regional Decision Team		
RfD	Reference Dose		
RI/FS	Remedial Investigation/Feasibility Study		
RM	River Mile		
RME	Reasonable Maximum Exposure		
ROD	Record of Decision		
RP	Responsible Party		
SAM	Sediment Assessment Methodology		
SAP	Sampling and Analysis Plan		
SIMI	Similarity Index		
SMP	Sediment Management Plan		
SPI	Sediment Profile Imaging		
SQG	Sediment Quality Guideline		
TAG	Technical Assistance Grant		
TBT	Tributyltin		
TCA	Trichloroethane		
TCLP	Toxicity Characteristic Leaching Procedure		
TEC	Trichloroethylene		
TEF	Technical Evaluation Framework		
TIE	Toxicity Identification Evaluation		
TMDL	Total Maximum Daily Load		
TOC	Total Organic Compounds		

Appendix F: Glossary of Terms

Applicable or Relevant and Appropriate Requirements (ARARs): The federal Superfund law (CERCLA) specifies that remedial actions must comply with requirements or standards under federal or more stringent state environmental laws that are applicable or relevant and appropriate to the hazardous substances or particular circumstances of a site. Applicable requirements are those protection requirements that specifically address a hazardous substance at a CERCLA site. Relevant and appropriate requirements are those protection requirements that, while not applicable to a hazardous substance, address problems sufficiently similar to those encountered at a CERCLA site to make them useful. (52 FR 32496, August 27, 1987)

Assessment Endpoint: An explicit expression of a specific ecological receptor and an associated function or quality to be maintained or protected. Assessment endpoints represent ecological receptors directly or as their surrogates for the purposes of an ecological risk assessment. (OAR 340-122-115(7))

Background Level: Concentration of hazardous substances, if any, existing in the environment near a facility before any past or present releases. (OAR 340-122-115(8))

Benthic Infaunal Communities: A group of plants, animals and other organisms that live in or on the sediment and interact with one another, forming a distinct living system with its own composition, structure, environmental relationships, development and function.

Best Management Practices (BMPs): Methods determined to be the most effective, practical means of preventing or reducing pollution from nonpoint sources.

Bioaccumulation: The ratio of the concentration of a chemical in an organism to the concentration of the chemical in an ambient medium (usually water).

Bioconcentration: The ratio of the concentration of a chemical in an organism to the concentration of the chemical in the organism's food or water.

Biota-Sediment Accumulation Function (BSAF): The relationship between tissue concentrations and sediment concentrations derived using tissue and sediment chemistry data.

Bioassays: Biological tests used to determine the toxicity and/or bioaccumulation potential of a hazardous substance.

Brownfields: Abandoned, idled or underused industrial and commercial facilities where expansion or redevelopment is complicated by real or perceived environmental contamination.

Carcinogens: Any substance or agent that produces or tends to produce cancer in humans. (OAR 340-122-115(10))

Chemical of Interest: A hazardous substance identified as having the potential to pose a risk to human health or the environment.

Cleanup: Actions taken to deal with a release or threatened release of hazardous substances that could affect public health or the environment. Agencies often use the term broadly to describe various response actions or phases of remedial activities, such as an RI/FS. "Cleanup" is sometimes used interchangeably with the terms "remedial action," "remediation," "removal action," "response action" or "corrective action."

Cleanup Level: Residual concentration of a hazardous substance determined to be protective of public health, safety and welfare, and the environment under specified exposure conditions. (OAR 340-122-115(11))

Community Advisory Group (CAG): A committee, task force or board made up of stakeholders affected by a Superfund or other hazardous waste site. A CAG provides a way for representatives of

diverse community interests to present and discuss their needs and concerns related to the site and the site cleanup process. CAGs are a community initiative and responsibility. They function independently of the EPA.

Community Involvement Plan (CIP): A formal plan of communication and public participation activities developed by the EPA to ensure opportunities for community members to learn more about Superfund site activities and provide input to inform site decision-making. The plan is the result of information collected through community meetings and interviews and a review of site-related documents.

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA): The federal act (Public Law 96-510; December 11, 1980) that provides for liability, compensation, cleanup and emergency response for hazardous substances released into the environment and the cleanup of inactive waste disposal sites.

Conceptual Model: A written description and illustration of predicted relationships between receptors (both human and ecological) and the hazardous substances they may be exposed to.

Consent Order: Legal vehicle to make sure cleanup moves forward at a contaminated site. It typically contains stipulated penalties for non-performance by the liable entity and cannot be terminated unilaterally.

Contaminant of Concern: A hazardous substance present in such concentrations that it poses a threat or a potentially unacceptable risk to public health or the environment. (OAR 340-122-115(15))

Data Quality Objectives (DQOs): Qualitative and quantitative statements of the overall level of uncertainty that a decision-maker will accept in results or decisions based on environmental data. These provide the statistical framework for planning and managing environmental data operations consistent with user's needs.

Ecological Risk Assessment: The process for evaluating how likely it is that the environment may be impacted because of exposure to one or more environmental stressors such as contaminants and hazardous wastes.

Endangered Species Act (ESA): Federal statute enacted in 1973 to conserve species and ecosystems. Species facing possible extinction are listed as "threatened" or "endangered" or as "candidate" species for such listings. Following such a listing, recovery and conservation plans are put in place to protect the species and its habitat.

Environment: The sum of all external conditions affecting the life, development and survival of an organism.

Environmental Cleanup Law: Oregon's revised cleanup law, enacted in 1995, which expanded ODEQ's authority related to the identification, investigation and cleanup of hazardous substances.

Environmental Protection Agency (EPA): Federal agency whose mission is to protect human health and safeguard the environment.

Facility: Any site or area where a hazardous substance is located and where a release has occurred or the potential for a release exists. (OAR 340-122-115(26))

Feasibility Study: An assessment of cleanup alternatives. A feasibility study, or FS, takes place if the risk assessment performed during a remedial investigation establishes the presence of unacceptable risks. During an FS, EPA screens and evaluates alternatives to clean up a site based on nine evaluative criteria, including effectiveness, cost and community acceptance.

Harbor-Wide Assessment: Investigations conducted in the lower Willamette River (River Miles 0.0 to 26.5), inclusive of Portland Harbor (River Miles 3.5 to 9.5), and possibly extending into the Columbia River near its confluence with the Willamette River.

Hazard Index: If a person is exposed to more than

one chemical, a screening-level estimate of the total non-cancer risk is derived simply by summing the HQ values for that individual. This total is referred to as the Hazard Index, or HI.

Hazard Ranking System: The principal mechanism the EPA uses to place uncontrolled waste sites on the National Priorities List. The numerically based screening system uses information from initial, limited investigations to assess the relative potential of sites to pose a threat to human health or the environment.

Hazardous Waste: Solid wastes that possess at least one of four characteristics (ignitability, corrosivity, reactivity or toxicity), appear on special EPA lists, or are defined as hazardous by Oregon rules and statutes.

Hot Spots: For ground water or surface water, hazardous substances having a significant adverse effect on beneficial uses of water or waters to which the hazardous substance would be reasonably likely to migrate and for which treatment is reasonably likely to restore or protect such beneficial uses within a reasonable time. For media other than water (including sediments), defined by the presence of high concentrations of hazardous substances that are likely to migrate and create a hot spot of contamination elsewhere, or by the presence of hazardous substances that are not reliably confinable. (OAR 340-122-115(31))

Human Health Risk Assessment: The process to estimate the nature and probability of adverse health effects in humans who may be exposed to chemicals in contaminated environmental media, now or in the future.

Institutional Control: Legal or administrative tool or action taken to reduce the potential for exposure to hazardous substances, which may include, but are not limited to, use restrictions, environmental monitoring requirements, and site access and security measures. (OAR 340-122-115(32))

Joint and Several Liability: Under CERCLA, this legal concept relates to the liability for Superfund site

cleanup and other costs on the part of more than one potentially responsible party (i.e., if there were several owners or users of a site that became contaminated over the years, they could all be considered potentially liable for cleaning up the site).

National Contingency Plan (NCP): The National Oil and Hazardous Substances Pollution Contingency Plan, more commonly known as the National Contingency Plan, or NCP, is the federal government's blueprint for responding to both oil spills and hazardous substance releases.

National Priorities List (NPL): The EPA's list of the most serious uncontrolled or abandoned hazardous waste sites identified for possible long-term cleanup under Superfund. The list is based primarily on the score a site receives from the Hazard Ranking System. The EPA is required to update the NPL at least once a year.

No Further Action (NFA): A determination by ODEQ following a preliminary assessment, risk assessment or completion of remedial action that no unacceptable risks to human health or to the environment remain.

Noncarcinogen: Hazardous substance with adverse health effects other than cancer on humans. (OAR 340-122-115(36))

ODEQ: State agency whose job is to protect the quality of Oregon's Environment. ODEQ is responsible for protecting and enhancing Oregon's water and air quality, for cleaning up spills and releases of hazardous materials, and for managing the proper disposal of hazardous and solid wastes.

Orphan Site Account (OSA): Account used to fund investigation and remedial actions where liable parties are unknown, unwilling or unable to participate. ODEQ uses litigation to recover OSA funds from recalcitrant responsible parties.

Potentially Responsible Party: An individual, company or other entity (such as owners, operators, transporters or generators of hazardous

waste) potentially responsible for, or contributing to, contamination at a Superfund site. Whenever possible, the EPA requires a PRP, through administrative and legal actions, to clean up hazardous waste sites it has contaminated.

Preliminary Assessment (PA): An assessment of information about a site and its surrounding area. A preliminary assessment determines whether a site poses little or no threat to human health and the environment or if it does pose a threat, whether the threat requires further investigation.

Proposed Plan: A plan for a site's cleanup that is available to the public for review and comment.

Public Availability Session: Informal public sessions that often use poster displays and fact sheets and that include EPA staff and contractors who are available to discuss issues and answer questions. Public availability sessions offer the public the opportunity to learn about project-related issues and to interact with EPA staff on a one-to-one basis.

Public Comment Period: A formal opportunity for community members to review and contribute written comments on various EPA documents or actions.

Public Meeting: Formal public sessions characterized by a presentation to the public followed by a question-and-answer session. Formal public meetings may involve the use of a court reporter and the issuance of transcripts. Formal public meetings are required only for the Proposed Plan and ROD amendments at a site.

Record of Decision (ROD): The public document issued by the EPA that explains the cleanup alternatives selected to clean up a Superfund site.

Release: Any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping or disposing into the environment, including the abandonment or discarding of barrels, containers and other closed receptacles containing any hazardous substance, or any threat thereof, but excluding exposures within a workplace, emissions from the engine exhaust,

nuclear material and the normal application of fertilizer.

Remedial Alternative: An action considered in the feasibility study intended to reduce or eliminate unacceptable risks to human health and the environment at a site. The feasibility study considers a range of remedial alternatives. A site's Record of Decision documents the selection of a specific remedial alternative over other alternatives.

Remedial Action: The selected remedial alternative documented in a site's Record of Decision.

Remedial Investigation (RI): The first of the two-part site study known as a remedial investigation/feasibility study. The remedial investigation involves collecting and analyzing information about a site to determine the nature and extent of contamination that may be present. The risk assessment, conducted with the remedial investigation, determines how conditions at a site may affect human health or the environment.

Remediation: The removal of pollution or contaminants from land, water and air to protect human health and the environment. Also see *cleanup*.

Removal Action: Action necessary to prevent, minimize or mitigate damage to public health, safety and welfare, and the environment (OAR 340-122-070). Generally taken in response to an imminent threat, it may take place at any point in the site response process, and may include source control measures, removal of highly contaminated material, and/or posting warning signs or constructing fences around a contaminated site.

Risk: Probability that a hazardous substance, when released into the environment, will cause adverse effects in exposed humans or ecological receptors.

Risk Assessment: The process of evaluating whether a hazardous substance poses a potential threat to human health and the environment, either now or in the future.

Sediment: Soils, sand, organic matter or minerals that accumulate on the bottom of a water body.

Sediment Quality Guidelines (SQGs): Numeric sediment concentrations above which further biological testing and/or a feasibility study may be warranted. Below these concentrations, suspected sediment contaminants are unlikely to pose an unacceptable risk.

Site Assessment: Process to evaluate potential or confirmed releases of hazardous substances that may pose a threat to human health or the environment. Criteria established under the Hazard Ranking System guide the process, which EPA, state, tribal or other federal agency environmental programs carry out.

Site Discovery: Process of identifying and documenting a release of hazardous substance to the environment.

Site-Specific Assessment: A remedial investigation conducted at a site or facility under the jurisdiction of Oregon's environmental cleanup statutes and rules.

Subsistence Fishing: People who obtain a significant portion of their dietary protein from eating self-caught fish of various species.

Superfund: The program operated under the legislative authority of CERCLA that funds and carries out EPA solid waste emergency and long-

term removal and remedial activities. These activities include establishing the National Priorities List, investigating sites for inclusion on the list, determining their priority, and conducting and/or supervising cleanup and other remedial actions. Superfund is the common name for CERCLA. People often use the term as an adjective for hazardous waste sites and the investigation and cleanup process directed by the EPA.

Tissue Screening Concentrations (TSCs): Contaminant concentration in fish tissue below which adverse effects are not expected for 95 percent of the fish species.

Target Tissue Levels (TTLs): A tissue concentration in food items (e.g., fish or shellfish) that does not pose an unacceptable risk to birds, mammals, or humans that consume these food items.

Portland Harbor: The six-mile (River Mile 3.5 to 9.5) industrialized part of the Willamette River between Swan and Sauvie Islands.

Voluntary Cleanup Agreement: Legal agreement to ensure cleanup moves forward at a contaminated site; entered into voluntarily by site owners, enforceable by administrative penalties or court action.

Willamette River: The 187-mile long waterway in northwest Oregon that flows northward between the coast and the Cascade Mountains.

Appendix G: Additional Information Resources

Agency Websites

EPA Region 10: www.epa.gov/region10/portlandharbor

ODEQ: www.deq.state.or.us/lq/cu/nwr/portlandharbor

Portland Harbor Fact Sheets (EPA Web page or upon request)

Proposed Confined Disposal Facility Questions and Answers – January 2013

Feasibility Study and Sitewide Status Update – April 2012

Human Health Risk Assessment Overview – February 2009

Reports and Other Materials of Interest (EPA Web page or upon request)

Draft Feasibility Study

Draft Human Health Risk Assessment

Draft Ecological Risk Assessment

Early Action Cleanup Area updates

Other Community Resources

Portland Harbor Community Advisory Group: www.portlandharborcag.info

Willamette Riverkeeper (technical assistance grantee):

www.willamette-riverkeeper.org/WRK/index.html

Natural Resource Trustee Council: www.fws.gov/oregonfwo/Contaminants/PortlandHarbor

Lower Willamette Group (LWG): lwgportlandharbor.org

EPA and ODEQ Contacts

General Questions

- Alanna Conley, EPA Community Involvement Contact: (503) 326-6831 | conley.alanna@epa.gov
- Marcia Danab, ODEQ Community Involvement Contact: (503) 229-6488 | danab.marcia@deq.state.or.us

Technical Questions

- Chip Humphrey, EPA Project Manager: (503) 326-2678 | humphrey.chip@epa.gov
- Jim Anderson, ODEQ Project Manager: (503) 229-6825 | anderson.jim@deq.state.or.us

En Español: Si desea hablar con alguien que habla español, llame a Michael Ortiz (ortiz.michael@epa.gov) | (206) 553-6234.

Request copies of EPA records using **FOIAonline**:

yosemite.epa.gov/r10/extaff.nsf/FOIA+pages/freedom+of+information+act.

Region 10 Regional Public Liaison: A facilitator between citizens and EPA staff who can help solve site-related problems and communication issues. Contact Suzanne Powers (powers.suzanne@epa.gov) at (360) 753-9475.

Environmental justice – The EPA's goal is to provide an environment where all people enjoy the same degree of protection from environmental and health hazards and equal access to the decision-making process to maintain a healthy environment in which to live, learn and work. Contact our environmental justice staff for more information and resources: yosemite.epa.gov/r10/ocrej.nsf/Environmental+Justice/EJ-Contacts.